

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Office of Enforcement

CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH34		PROJECT NAME Cheshire Monitoring study						NO. OF CON- TAINERS		<div style="text-align: right;">Activity Code: 12345</div> <div style="font-size: 2em; font-family: cursive;">AIR 20020042</div>							
SAMPLERS: (Print Name and Sign) Mike Murphy Mike Murphy 2-19-02																	
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION:	TAG NUMBERS											
DO1	2/19	00:00	X		GHS	1								5-340160 1 to 1			
SO1	2/19	00:00	X		GHS	1								5-340159 1 to 1			
SO2	2/19	00:00	X		RVHS	1								5-340161 1 to 1			
SO3	2/19	00:00	X		ADDAVILLE	1								5-340162 1 to 1			
														GHS # 3012, Postg Avg = 18.75			
														GHS # 3013, Postg Avg = 18.9			
														RVHS # 3009, Postg Avg = 19.25			
														Addaville # 3011, Postg Avg = 18.8			
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			Ship To:									
M.J. Murphy			2-19-02 12:14		William Sargent												
Relinquished by: (Signature)			Date / Time		Received by: (Signature)			ATTN:									
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature)			Date / Time		Airbill Number							
					William Sargent			2/28/02 11:14am		UPS # 1Z 401 19901 4090 4641							
										Chain of Custody Seal Numbers							
5-140039																	

5-140039

Project No. 02AH34 Project Name CHESHIRE MONITORING STUDY 90101A
AIR 20020042 ARRIVAL DATE: 2/28/02 DUE DATE: 3/21/2002

Sampler
Mike Murphy

Cooler ID 02AH341 Page 5-140039

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34DO1	DO1	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340160 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO1	SO1	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340159 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO2	SO2	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340161 1 to 1

Bottle No. 1

Parameter
PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO3	SO3	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340162 1 to 1

Bottle No. 1

Parameter
PM10

CENTRAL REGIONAL LABORATORY

Data Checklist

Data Set AIR 2002 0042 Cheshire Monitoring Study

- ☒ Chain-of-Custody
- ☒ Analysis Request Form(s)*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
 - Analyst (s)
 - Peer Reviewer
 - Environmental Data Coordinator

* Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations

Prepared by:

Sylvia Griffin 3/7/02
Data Management Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

MAR 07 2002

Date:

Subject: Review of Region 5 Data for **CHESHIRE MONITORING STUDY**

From: **Edgar Santiago, Chemist** *E.S.*
Region 5 Central Regional Laboratory

To:

ttached are the results for: **CHESHIRE MONITORING STUDY**

CRL data set number: **20020042**

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: **2002AH34D01, 2002AH34S01, 2002AH34S02, and 2002AH34S03.**

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

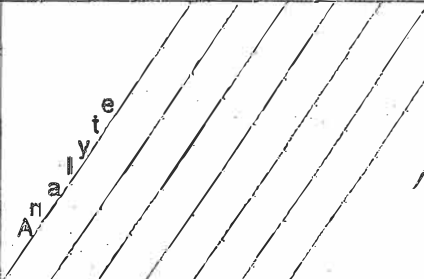
DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 02/19/2002 LAB ARRIVAL DATE: 02/28/2002 DUE DATE: 03/21/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020042 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY: CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH34D01	GUIDING HANDS SCHOOL	0.0109			
2	2002AH34S01	GUIDING HANDS SCHOOL	0.0117			
3	2002AH34S02	RVHS	0.0486			
4	2002AH34S03	ADDAVILLE	0.0360			
DATE OF ANALYSIS			03/05-06/2002			
ANALYST			E.S.			

Reviewed by: FAA Date: 3/17/2002

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CHAIN OF CUSTODY RECORD

PROJ. NO. 02AH34		PROJECT NAME Cheshire Monitoring study				NO. OF CON- TAINERS	<div style="text-align: center;">  ANALYTE </div> <div style="text-align: right; font-size: 2em; font-family: cursive;">AIR 20020042</div>										Activity Code: 12345	
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i> 2-19-02																		
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION													
DO1	2/19	00:00	X		GHS	1											5-340160 1 to 1	
SO1	2/19	00:00	X		GHS	1											5-340159 1 to 1	
SO2	2/19	00:00	X		RVHS	1											5-340161 1 to 1	
SO3	2/19	00:00	X		ADDAVILLE	1											5-340162 1 to 1	
																	GHS # 3012, Postg Avg = 18.75	
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																	RVHS # 3009, Postg Avg = 19.25	
																	Addaville # 3011, Postg Avg = 18.8	
Relinquished by: (Signature) <i>M. J. Murphy</i>		Date / Time 2-19-02 12:14		Received by: (Signature) <i>William S. [Signature]</i>				Ship To:										
Relinquished by: (Signature)		Date / Time		Received by: (Signature)														
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature) <i>William S. [Signature]</i>				Date / Time 2/28/02 11:14 AM		ATTN:								
										Airbill Number UPS # 1Z 401 19901 4090 4641								
														Chain of Custody Seal Numbers.				

Project No. 02AH34 Project Name CHESHIRE MONITORING STUDY 90101A
 AIR 20020042 ARRIVAL DATE: 2/28/02 DUE DATE: 3/21/2002

Sampler
 Mike Murphy

Cooler ID 02AH341 Page 5-140039

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34DO1	DO1	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340160 1 to 1

Bottle No. 1

Parameter
 PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO1	SO1	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340159 1 to 1

Bottle No. 1

Parameter
 PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO2	SO2	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340161 1 to 1

Bottle No. 1

Parameter
 PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH34SO3	SO3	19/02/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340162 1 to 1

Bottle No. 1

Parameter
 PM10

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 02/19/2002 LAB ARRIVAL DATE: 02/28/2002 DUE DATE: 03/21/2002
DU NUMBER: 90101A DATA SET NUMBER: 20020042 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH34D01	GUIDING HANDS SCHOOL	0.0109			
2	2002AH34S01	GUIDING HANDS SCHOOL	0.0117			
3	2002AH34S02	RVHS	0.0486			
4	2002AH34S03	ADDAVILLE	0.0360			
DATE OF ANALYSIS			03/05-06/2002			
ANALYST			E.S.			

Reviewed by: FRH Date: 3/7/2002

Page 1 of 1

Data Set Number:	20020042	Parameter:	Suspended Particles
Facility Name:	CHESHIRE MONITORING STUDY		
Study Name:	CHESHIRE MONITORING STUDY		
Date of Narrative:	03/06/2002	Analyst:	ES
		Signature:	ES

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 28, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279997	2002AH34D01	5-340160
Q6280093	2002AH34S01	5-340159
Q6279996	2002AH34S02	5-340161
Q6280124	2002AH34S03	5-340162

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/05/2002 and was completed on 03/06/2002. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page 9 of 9

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020042 Facility: CHESHIRE AIR MONITORING
 Parameter: PM 10 CRL SOP: AUG-047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: CS Peer Reviewer: FOR

Date: 3/6/2002 Date: 3/7/2002

Comments Attached? (Y/N) N

Data Set Number:	<u>20020042</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>03/06/2002</u>	Analyst:	<u>ES</u>
		Signature:	<u>E.S.</u>

ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on February 28, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

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Q6279996	2002AH34S02	5-340161
Q6280124	2002AH34S03	5-340162

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 03/05/2002 and was completed on 03/06/2002. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT PM10

Parameter: Suspended Particles

Data Set Numbers: 20020042- 20020043

Date of Analysis 03/05-06/2002

Analyst: ES

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/- 0.0005 g		
1.0000	1.0001	-0.0001
2.0000	2.0000	0.0000
5.0000	4.9999	0.0001

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6280124	2002AH34S02	03/06/02	Analyst 1	4.4085
Q6280124	2002AH34S02	03/06/02	Analyst 2	4.4084
Differences (Limit +/- 5 mg).....				0.0001
Q6279958	2002AH35S03	03/06/02	Analyst 1	4.4328
Q6279958	2002AH35S03	03/06/02	Analyst 2	4.4328
Differences (Limit +/- 5 mg).....				0.0000

CHESHIRE AIR MONITORING PROJECT
PM10

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Data set Number 20020042											
Q6279997	2002AH34D01	02/19/02	Guiding Hands School	3013	18.90		0.00	4.3703	4.3812	0.0109	ERR
Q6280093	2002AH34S01	02/19/02	Guiding Hands School	3012	18.75		0.00	4.3732	4.3849	0.0117	ERR
Q6279996	2002AH34S02	02/19/02	RVHS	3009	19.25		0.00	4.3715	4.4201	0.0486	ERR
Q6280124	2002AH34S03	02/19/02	Addaville	3011	18.80		0.00	4.3725	4.4085	0.0360	ERR

General information

Standard weights, actual (g)

Balanced weights, balanced (g)

Mettler Toledo	5.00	5.0001
2/26/02 to	1.00	1.0001
S/N 1120181846	0.50	0.5001
	2.00	1.9999
	7.00	7.0001

SARTORIUS	(500 + 200 ^(mg) + 200 + 100)	1.0000	1.0001
S/N 37010119		2.0000	2.0001
2/27/2002 E.S.		5.0000	4.9998

SARTORIUS	(500 + 200 ^(mg) + 200 + 100)	1.0000	1.0001
S/N 37010119		2.0000	2.0000
3/06/2002		5.0000	4.9999

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt. DUP (g)	COMMENTS
Q6280088	4.3680		4.3880		
Q6280087	4.3802		4.3952	4.3954	
Q6280086	4.3774		4.4076		
Q6280010	4.3762		4.3941		
Q6280009	4.3611				
Q6280008	4.3420		4.3370		
Q6280007	4.3662		4.3701		
Q6280006	4.3721		4.3692		
Q6280005	4.3129		4.3332		
Q6280004	4.3647		4.3804	4.3807	
Q6280003	4.3563		4.3715		
Q6280002	4.3415		4.3532		
Q6280001	4.3437		4.3574		
Q6280000	4.3727		4.3816		
Q6279999	4.3639				
Q6279998	4.3384				
Q6279997	4.3703		4.3812		
Q6279996	4.3715		4.4201		
Q6280093	4.3732		4.4201 4.4201 E.S.		
Q6280094	4.3557		4.4702 4.4702 E.S.		CORNER PART TEARLED OFF
Q6280095	4.3828		4.4193		
Q6280124	4.3725		4.4085	316/02 4.396273	4.4084
Q6280125	4.3467		4.4080	4.4075	
Q6280123	4.3819		4.4277	4.4281	
Q6280092	4.3409		4.3632		SMALL TEAR

FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
Q6279981	4.3392				
Q6279980	4.3277				
Q6279979	4.3413				
Q6279978	4.3286				
Q6279977	4.3605				
Q6279976	4.3560				
Q6279975	4.3479	4.3482 ^{FM}			
Q6279974	4.3368				
Q6279973	4.3615				
Q6279972	4.3590				
Q6279971	4.3547				
Q6279970	4.3729				
Q6279969	4.3818				
Q6279968	4.3362	4.3364 ^{FM}			
Q6279967	4.3575				
Q6279966	4.3708				
Q6279965	4.3650				
Q6279964	4.3367				
Q6279963	4.3710				
Q6279962	4.3820	4.3821 ^{FM}			
Q6279961	4.3700				
Q6279960	4.3595				
Q6279959	4.3471		4.4685		
Q6279958	4.3600		4.4328	4.4328	

US EPA Region 5 Field Sample



5-340160-1

Parameters PM10

20020042

Preservative None S M M D B D

Sample ID 02AH34DO1 X

Sampler M. J. Murphy

Date 2-19-02

PM-10 ☒ SARGAD ☐ OPERATOR CEPA DATE 2-17-02

TSP ☐ SITE CHS # 5663 06277997

AVG. RECORDER RESP. 12.9 TEMP C K FINAL WT g

ELAPSED TIME 1416 MINUTES PRESS mmHg INITIAL WT g

FLOW m³/min TOTAL FLOW m³ SAMPLE WT g

STD ACTUAL PM-10 ug/m³

COMMENTS:

COMMENTS:

STD _____ ACTUAL _____ PM-10 _____ ug/m³
 FLOW _____ m³/min TOTAL FLOW _____ m³ SAMPLE WT _____ g
 ELAPSED TIME _____ MINUTES PRESS _____ mmHg INITIAL WT _____ g
 AVG. RECORDER RESP. _____ TEMP _____ °C _____ K FINAL WT _____ g
 TSP _____ SITE _____ G/15/3012 06280083
 PM-10 _____ SAROAD _____ OPERATOR _____ DATE 2-19-02

US EPA Region 5 Field Sample



5-340159-1

Parameters PM10

20020042

Preservative None

S M M D B D

Sample ID 02AH34S01

X

Sampler

M. J. Murphy

Date

2-19-02

COMMENTS:

STD

ACTUAL

PM-10

ug/m³

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

g

ELAPSED TIME 1440 MINUTES

PRESS

mmHg

INITIAL WT

g

AVG. RECORDER RESP. 19.25

TEMP

C

K

FINAL WT

g

TSP

SITE

RVHS

Q6279972

PM-10

SAROAD

OPERATOR

CEPA

DATE

2-19-02

US EPA Region 5 Field Sample



5-340161-1

Parameters PM10

20020042

Preservative None

S M MD B D

Sample ID 02AH34S02

X

Sampler M.J. Murry

Date 2-19-02

AIRS

PM-10

OPERATOR

OEPA

DATE 2-17-02

TSP

SITE Adelaide # 3011 0962801211

AVG. RECORDER RESP.

18.8

TEMP

°C

K

FINAL WT

g

ELAPSED TIME

1440

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m³/min

TOTAL FLOW

m³

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m³

COMMENTS:

US EPA Region 5 Field Sample



5-3 0162-1

Parameters PM10

20020202

S M M D B D

Preservative None

Sample ID 02AH34S03

Sampler M.G. Murray

Date 2-17-02

